

Linear Models - 1st differences

x	y
2	4
4	8
6	12
8	16
10	20

1st Difference: 2, 2, 2, 2, 2

2nd Difference: 0, 0, 0, 0, 0

Jan 12-2:05 PM

Quadratic Models - 2nd differences

x	y

1st Difference

2nd Difference

Jan 12-2:05 PM

Exponential Models - Ratios

Example 1 - Americium-241 (Am-241) is a manufactured element. It is a silvery radioactive metal, which is used in smoke detectors. Household smoke detectors contain about 200 micrograms. The amount present in the detector decreases over time. The table shows the mass of Am-241 remaining, in micrograms, over 1000 years

Years	Mass Remaining
0	200
100	170
200	145
300	124
400	105
500	90
600	76
700	65
800	55
900	47
1000	40

1st Difference

2nd Difference

Ratio

